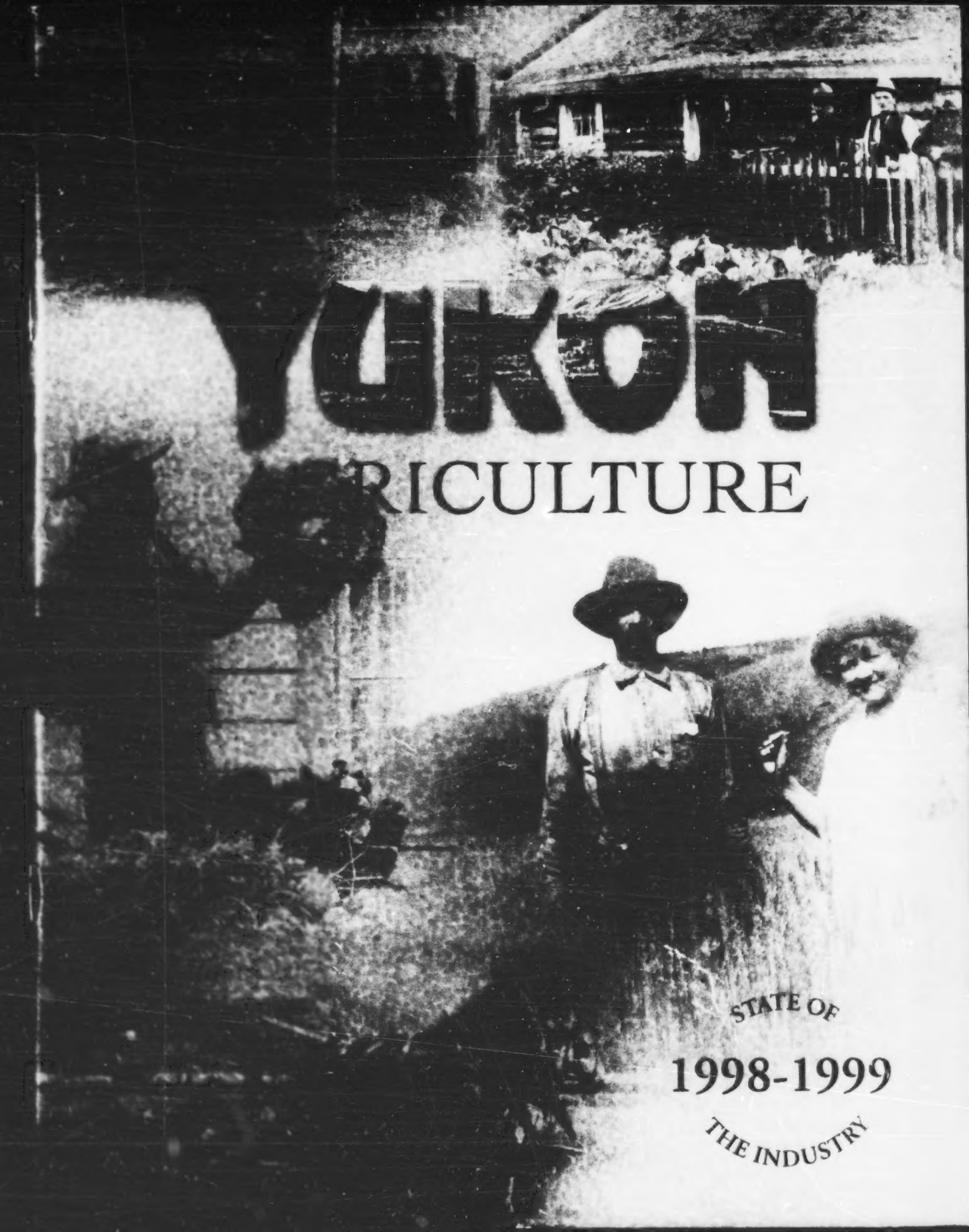

YUKON

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YUKON AGRICULTURE

STATE OF THE INDUSTRY, 1998-1999

Department of Renewable Resources, Government of the Yukon

Agriculture and Agri-Food Canada — Research Branch

MARCH 2000

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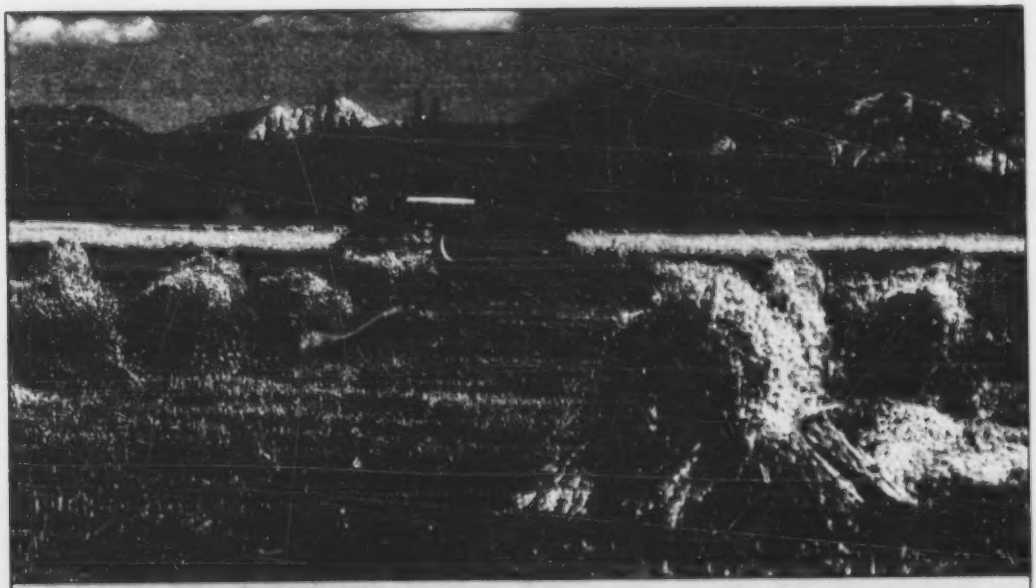

Firth farm, Takhini River Valley.

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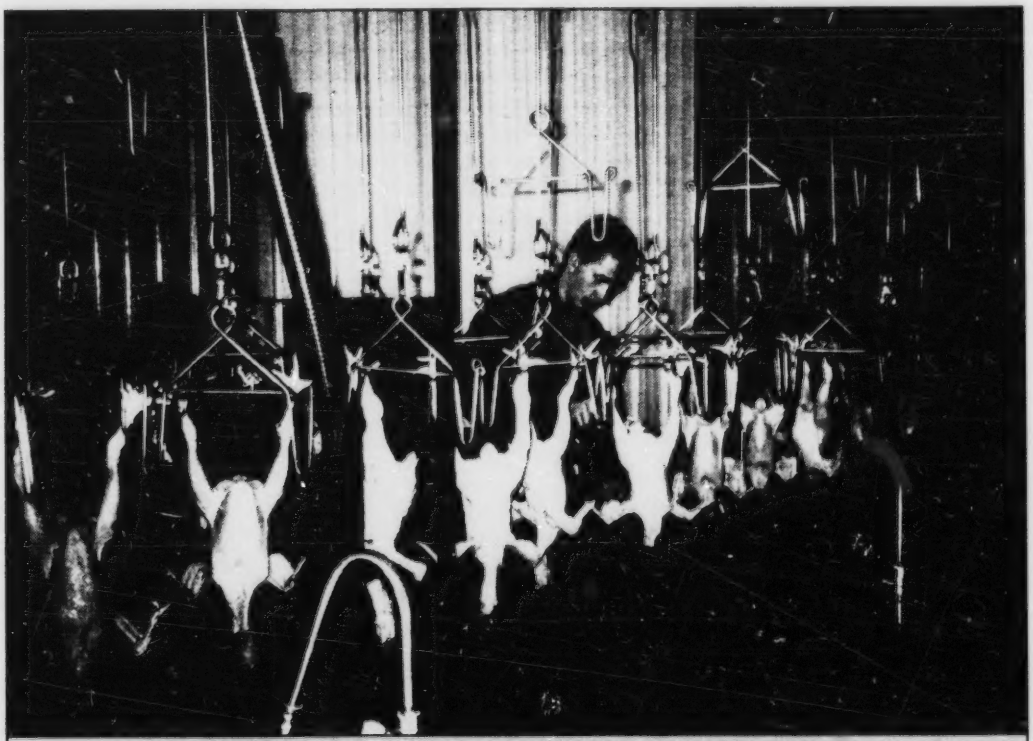


Abattoir at Partridge Creek Farm.

INTRODUCTION

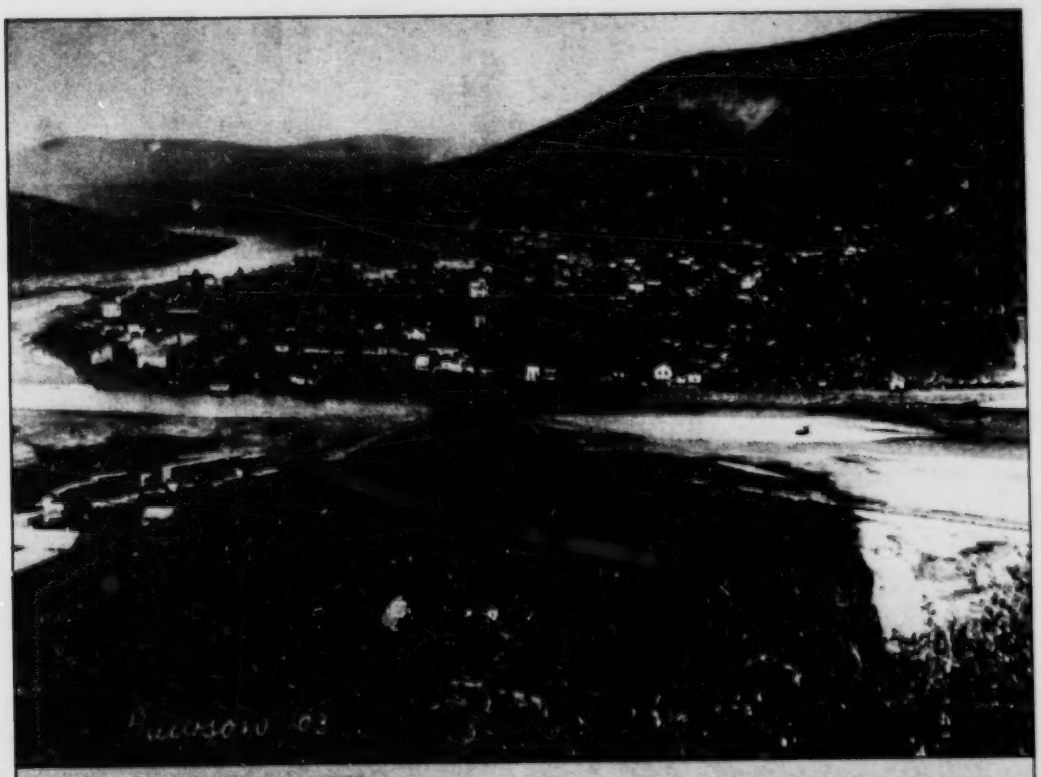
This report provides a description of agricultural programs, services and policies administered by the Yukon and federal governments, as well as a summary of initiatives taken by the private and non-government sectors. The target readership includes farmers, non-government organizations like the Yukon Agricultural Association (YAA), agricultural land applicants, other government departments and the general public.

This report begins with a brief look back at the last century of agriculture in the Yukon. It then summarizes the agricultural sector's activities and developments during the 1998 and 1999 calendar years.

A brief history of agriculture in the Yukon

The cultivation of crops in the Yukon began in the middle of the 19th century with fur trading companies and traders establishing more permanent habitation. Locally grown potatoes and other vegetables formed an important dietary supplement. In 1873, the arrival of gold seekers to the Yukon stimulated the agricultural industry to supply food for both the human population and the associated animals which were required for the transportation of materials and supplies.

Before the turn of the century, the population had dramatically increased to approximately 30,000 people and several thousand acres of land had been cleared and seeded to agricultural



Farmland at Dawson City, 1903

Klondike vegetables.

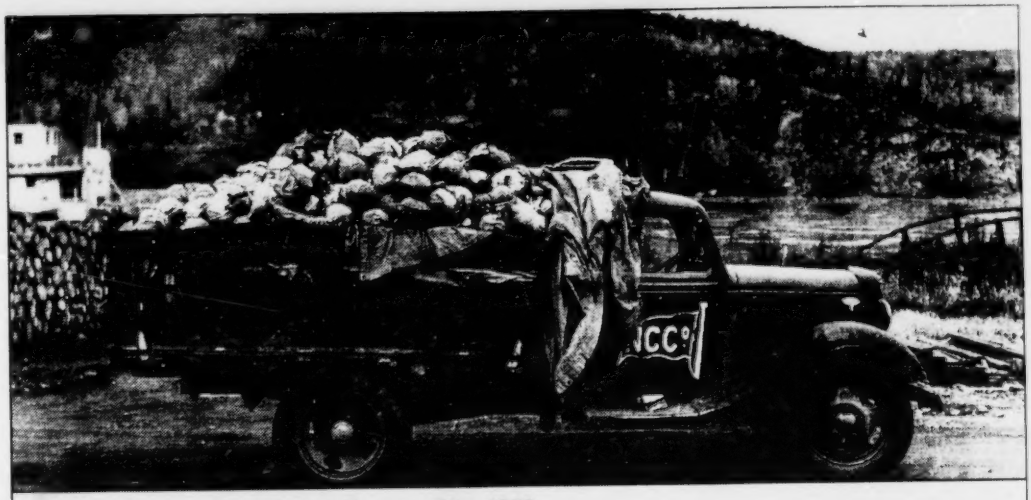
RCMP garden, Fort Selkirk.

1942, Fort Selkirk.

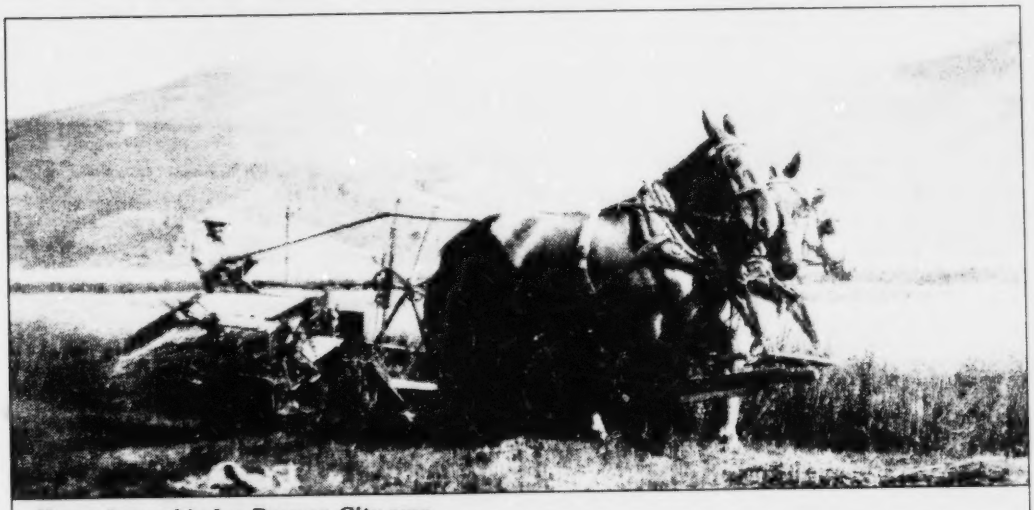
Horse-drawn rake, Indian River.

Mr. Sketon and Mrs. Black with wheat crop, at Stewart Crossing.

Alfalfa crop at Close's farm, Mayo, 1950s.



Cabbage harvest, Front Street, Dawson City, 1930.



Horse-drawn binder, Dawson City area.

Mile 1019 Experimental Farm, Haines Junction, late 1950s.

Dominion Experimental Farm, Haines Junction, late 1950s.

crops. Large quantities of vegetables and forage were grown on farms in the Dawson area. Between 1901 and 1911, the population declined to about 8,500, and the demand for farm produce also decreased. Cost of production and lack of transportation did not permit the industry to access further markets when the local population declined.

In 1915, the Dominion Department of Agriculture began conducting co-operative research, growing crops with interested individuals in the Yukon. In 1917, the Department established an experimental sub-station at Swede Creek near Dawson City. The results of research carried out at the station confirmed that a variety of crops could be grown successfully at a latitude of 64° north, with yields and quality of produce comparing favourably with those obtained in the agricultural areas a thousand miles to the south. The Swede Creek station closed in 1925.

Some extensive production continued at Pelly River Farm, Mayo, in the Indian River Valley and other areas around Dawson. Cattle and some poultry were raised, hay was grown, and vegetables, including tomatoes and cucumbers, were grown under glass.

In 1944, after the completion of the Alaska Highway, the Government of Canada conducted soil surveys along the Alaska Highway and the Yukon River as far as Dawson. A new experimental farm was established at Mile 1019 of the Alaska Highway near Haines Junction. This farm was in operation until 1968. A variety of vegetables and grains were grown successfully, and pigs, beef cattle and poultry were raised without difficulty.

The 1971 census listed only 12 farms operating in the territory. This involved 2,271 acres of land, of which 1,418 were improved. The total reported value of farm products sold was $18,380, and only three of the farms reported annual sales of $2,500 or more. In 1971, the population of the Yukon was 18,390.

The 1980s saw a kind of rebirth of farming in the Yukon after the doldrums of the 1970s. The decade of the seventies was one of the toughest for Yukon agriculture in the last 100 years. The Government of Canada resisted the pressure for disposition of rural land for agriculture. The major concerns centered on making sure that the climate and soils were suitable, establishing an appropriate agriculture policy, and fitting a new agricultural land disposal program into the beginning of land claim negotiations. Key studies undertaken during the 1970s included an

extensive agroclimate study, a large area soil mapping exercise completed in 1977, and three policy papers.

The Government of Yukon threw its weight behind the concept of easily available rural agricultural land, and by 1982 had established its own agriculture policy for Commissioner's Lands. The landmark Hoyt report in 1983 concluded that the Government of Yukon had a policy and process to allow assessment of applications on Federal Crown Land. With the agreement of the Government of Canada, agricultural applications were accepted and processed by the Yukon government on a territory-wide basis.

It took several years for the results of the land disposal process to show results. Between 1986 and 1996 the Canada Census shows a four-fold increase in the number of farms, a six-fold increase in the value of agricultural sales, and a three-fold increase in land in crops.

The future of agriculture in the Yukon may rest on the demand for fresh, organic or pesticide-free produce, and crops at the local level. Further niche markets exist for fireweed honey, and for local berry and forest products. Livestock suited to the northern environment, such as elk and bison, are providing export opportunities. High quality forages are widely grown and available throughout the territory.

At the end of the 20th century, agricultural production and the population of the Yukon have once again reached the levels achieved at the beginning of the century.

Industry highlights for 1998-1999

- The Yukon's first licensed abattoir opened at Partridge Creek.
- The first inspected and "Yukon Approved" poultry were sold in retail grocery outlets.
- The Agriculture Training Trust Fund was established by the Yukon government and administered by the Yukon Agricultural Association (YAA).
- The federal Minister of Agriculture made a formal visit and tour of Yukon farms for the first time in over 50 years. This visit was followed by the first ever Whitehorse meeting of federal, provincial and territorial agriculture deputy ministers.
- The Yukon government was given a seat on the Canadian Farm Business Management Council and on the Canadian Extension Council.
- The 4-H program expanded in Whitehorse and in two other Yukon communities.
- Agricultural lands were released by lottery in the M'Clintock Valley.
- The first Canada Adaptation and Rural Development (CARD) Fund agreement was completed and the second CARD Fund agreement was initiated, transferring $498,000 to YAA for Yukon projects over the next four years.
- The agricultural land base expanded with the issuance of 22 new agricultural titles totaling 1,104 hectares.

THE AGRICULTURAL LAND BASE

A brief description of Yukon geography, climate and soil

Less than two percent of the Yukon's 483,450 square kilometres is suitable for agricultural development because of limitations of geography, climate and soils.

The Yukon is part of the Canadian cordilleran region that is characterized by mountainous terrain and the presence of glaciers and icefields in some areas. Soil-based agriculture is limited to major river valleys including those of the Yukon, Takhini, Pelly, Stewart and Liard. For the most part, agricultural activity is located on river sediments. In the Takhini and Dezadeash valleys, typical agricultural soils are formed on silts and clays deposited by glacial Lake Champagne.

The Yukon has a sub-arctic continental climate with temperatures reaching as high as 30°C in the summer and as low as –50°C in the winter. The average frost free period ranges from 93 days in the Watson Lake area, to 21 days at Haines Junction. As well as varying greatly geographically, frost free periods vary substantially from year to year, at any location. Long hours of daylight during the summer promote rapid growth which compensates to some extent for the cooler summer temperatures experienced north of 60° latitude.

Average annual precipitation ranges from about 20 centimetres west of Whitehorse to more than 40 centimetres in Watson Lake. The southwest Yukon, where most agricultural production occurs, lies within the rain shadow created by the St. Elias and Coastal mountains. Southwest Yukon is subject to droughts between April and July, a serious problem for crop germination.

Yukon soils are generally deficient in nitrogen and phosphorous. Potassium and sulphur abundance is often dependent on local geology and is difficult to predict. Since 1984, more than half of the soils tested by the Yukon Agriculture Branch have been deficient in potassium. The most common micronutrient deficiencies are boron and magnesium. Soils throughout the Yukon are low in organic matter, and salinity has been identified as a problem in localized areas. Permafrost is found throughout the Yukon, varying from sporadic discontinuous in southern agricultural areas, and increasing to extensive discontinuous at the northern extreme of agricultural activity in the territory.

Yukon agricultural areas

The total amount of land disposed of through the Yukon agricultural land program is approximately 11,800 hectares. This land is utilized in the following ways: approximately 20% is in crops; 20% is under development; 20% is pasture; and the remaining 40% is undeveloped woodland. All of the land released to date represents less than one-half of one percent of the land base of the Yukon. (Note: These figures may differ from Census figures as they are compiled from Yukon government data sources.)

Most of the land used for agricultural purposes in the Yukon is located near the major communities. Seventy percent of the Yukon's farms are located within 100 kilometres of Whitehorse. The Takhini Valley agricultural area west of Whitehorse is the largest agricultural area in the territory. Significant agricultural areas are also found near Dawson City, Watson Lake and Mayo.

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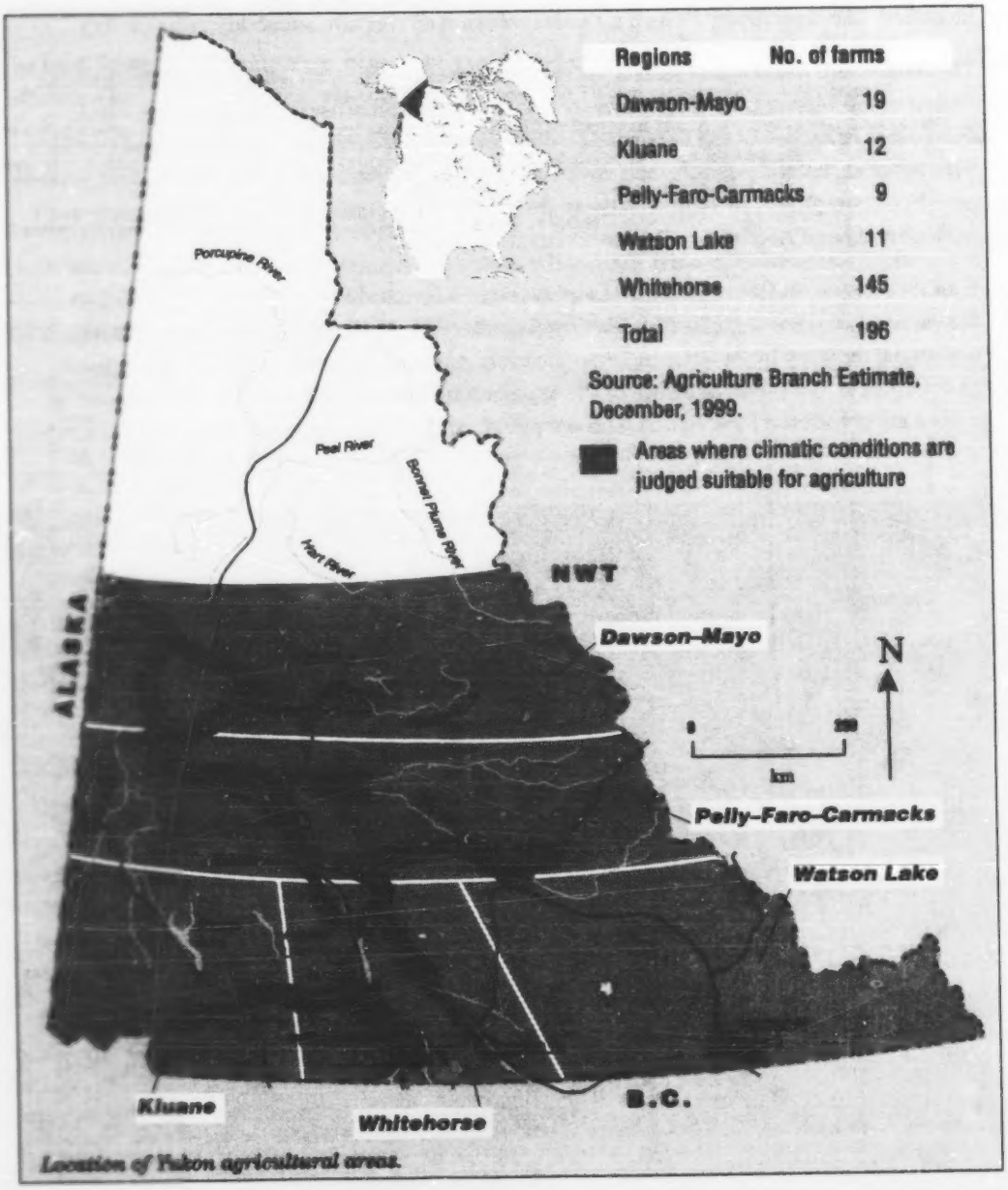
Obtaining Crown Land for agricultural use

The basis for obtaining Crown Land for agricultural use is explained in the document *Agriculture for the 90s: A Yukon Policy*. This policy is currently under review, and changes to the policy and delivery of the program are anticipated.

The Yukon is one of the few places left in Canada where Crown Land can be obtained for agricultural purposes. To qualify for Crown Land, an applicant must be a Canadian citizen or permanent resident of Canada, at least 19 years of age, and have lived in the Yukon for at least one year.



Location of Yukon agricultural areas.

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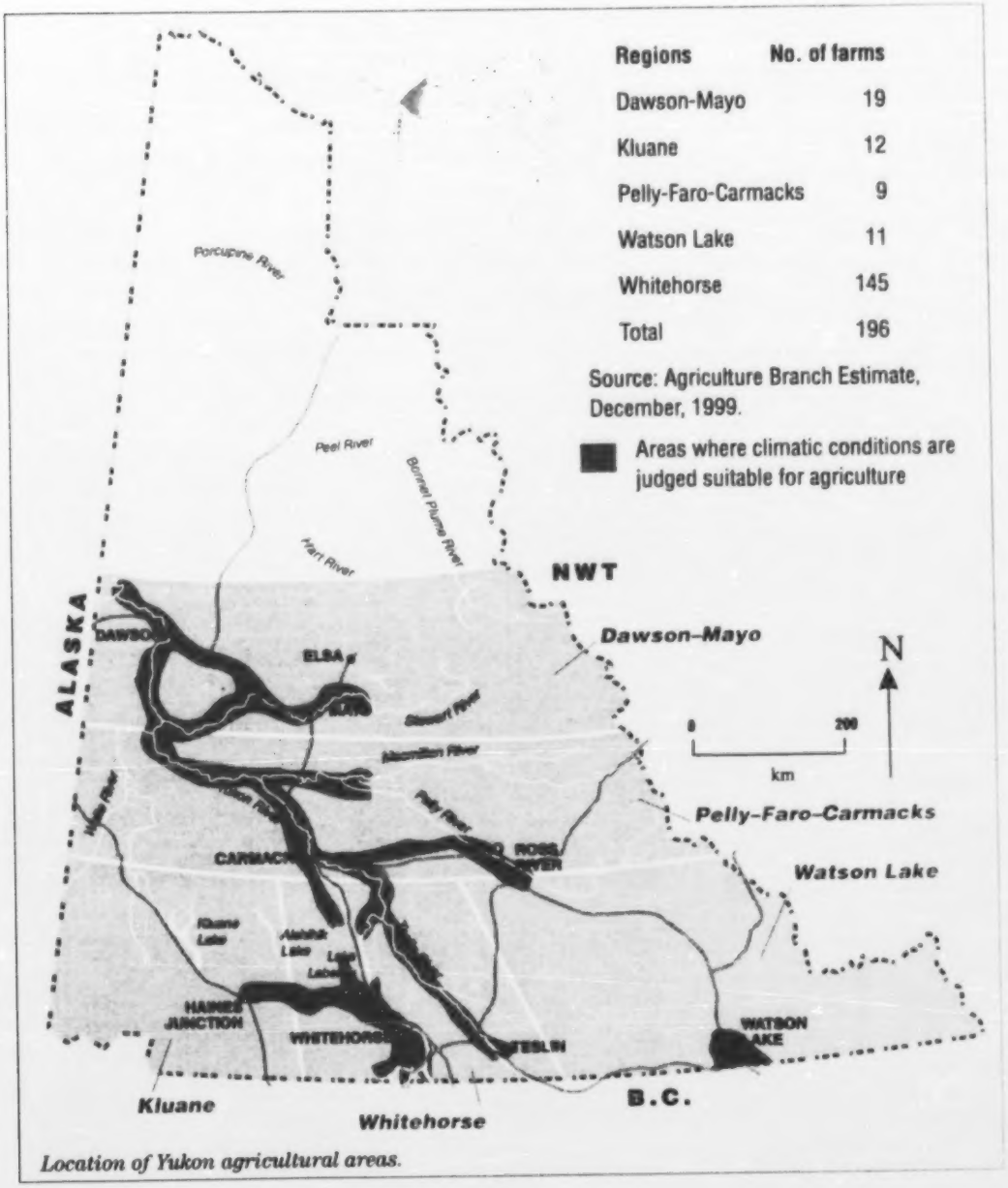


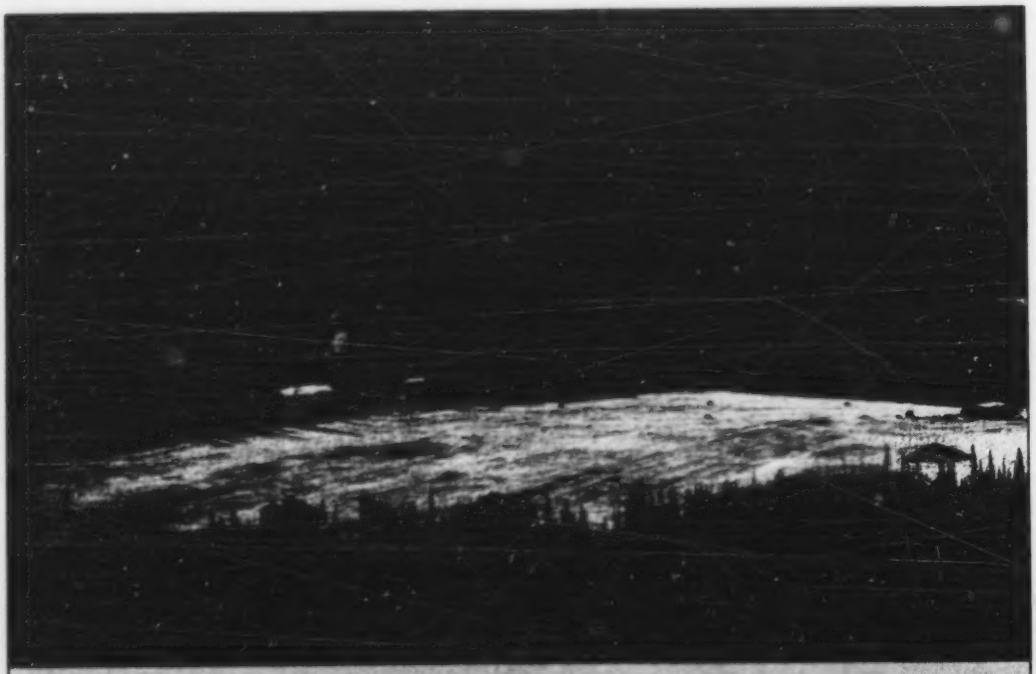
Location of Yukon agricultural areas.

The application process for acquiring Crown Land for agricultural purposes takes approximately 18 to 36 months, and the majority of applications are denied. The process begins with an application to the Agriculture Branch of the Yukon Department of Renewable Resources. The application must describe the intended uses of the land and the applicant must certify that an acceptable farm development plan will be submitted within 30 to 60 days. Applicants must also declare that they will retain their Yukon residency during the life of any agricultural land Agreement for Sale that may result.

Preliminary reviews of the application are conducted by the Agriculture Branch of the Department of Renewable Resources, the Lands Branch of the Department of Community and Transportation Services, and other government review agencies. Conflicts with land use regulations, other land interests and applications, or known First Nations land claims will be identified. The Agriculture Branch provides an evaluation of site suitability and arability.

The Agriculture Branch also assists the applicant in conducting an agricultural management review of the soils, topography, water, access, location, and other concerns. At the same time, other Branches of the Department of Renewable Resources examine potential conflicts with fisheries, habitat, wildlife, and environmental and recreational values. Once these reviews have been completed, recommendations are prepared for consideration by the Department's Agricultural Land Application Review Committee (ALARC).

If an application on Commissioner's Land receives a favourable review from ALARC, it is forwarded to the Land Application Review Committee (LARC) and the First Nation which holds traditional territory in the area under application. Applications are also advertised in local newspapers so the public is aware of the applications and may make comments. Following consultation with the First Nation, and the public, and a favourable recommendation from



Hay farm, Yukon River.

LARC, an Agreement for Sale may be prepared setting out the terms and conditions which must be met in order for the applicant to obtain title to the land.

If the application involves Federal Crown Land, rather than Commissioner's Land, it must be approved by the Federal-Territorial Land Advisory Committee (FTLAC). Finally, an Order-in-Council must be approved by the Federal Cabinet, transferring the land to the Commissioner for subsequent disposition to the applicant.

The land is released to the applicant under an Agreement for Sale with an attached value. With this figure in mind, the applicant is required to meet all the conditions of the Agreement for Sale, including development of the property. Under the provisions of the Yukon Agriculture Policy, for every two dollars of approved development work completed by the applicant, one dollar may be forgiven.

The total figure for the minimum work to be completed is calculated as being twice the difference between the market value of the land and the Yukon government's estimated development cost. If the applicant has met all the obligations of the Agreement for Sale within five years, the Agreement can be considered completed and title can be issued.

Agricultural land applications in 1998-1999

There were 28 agricultural land applications submitted in 1998. Nine of these applications were rejected by the Yukon government and the other 19 are still in the review process. Nine Agreements for Sale, totaling 223 hectares, were issued along with 13 agricultural titles, totaling

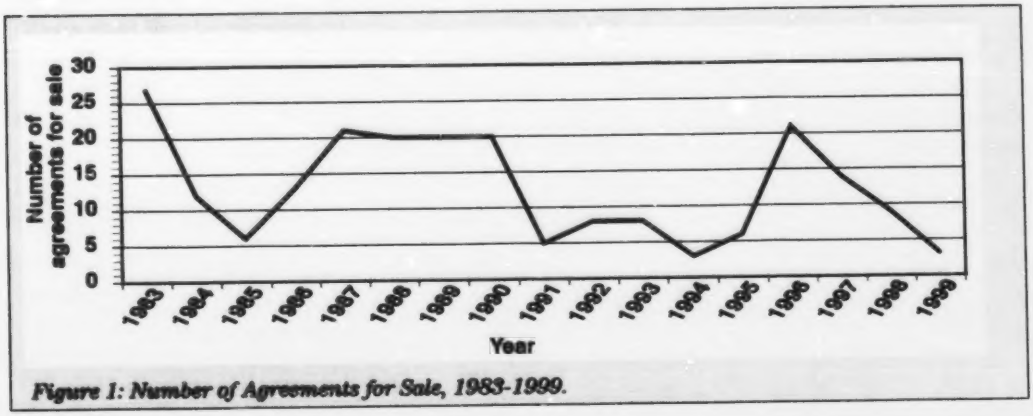


Figure 1: Number of Agreements for Sale, 1983-1999.

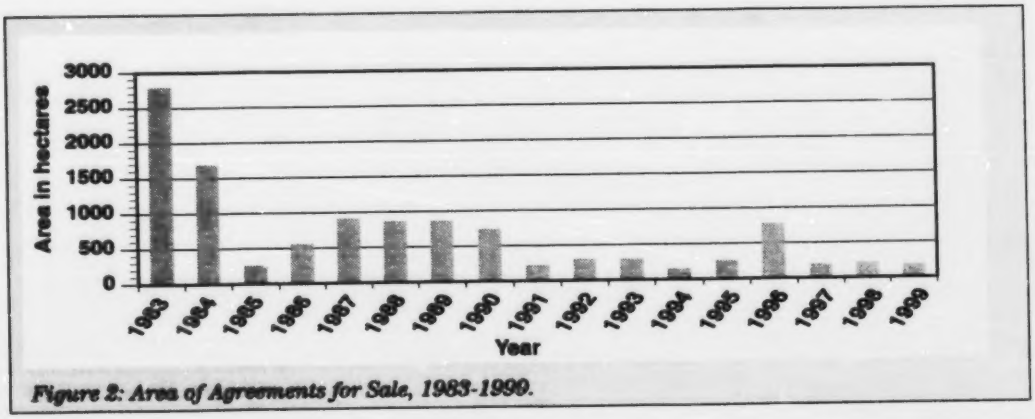


Figure 2: Area of Agreements for Sale, 1983-1999.

657 hectares (Figures 1, 2). The second public agricultural land lottery for two agricultural lots was conducted on January 19, 1998. There were 26 applications received for these lots.

Of the 18 applications received in 1999, seven were rejected by the Yukon government and the balance are at different stages of the review process. Eleven Agreements for Sale, totaling 590 hectares, were issued in 1999 along with nine titles, totaling 446 hectares.

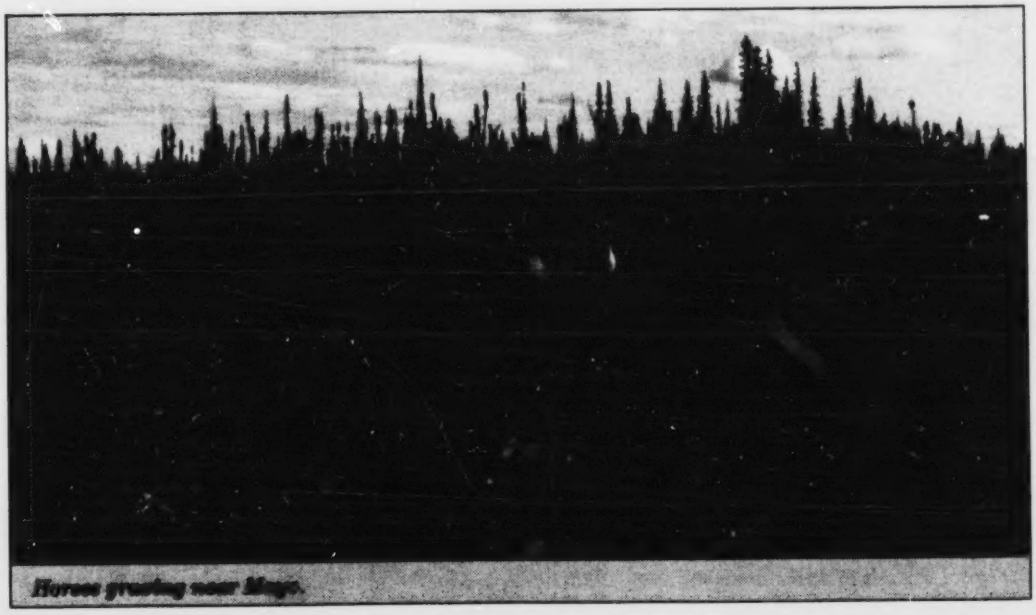
There are currently 60 agricultural land applications under active consideration, a further 27 on hold, and 43 awaiting federal Orders-in-Council transferring them to the Yukon government, for a total of 130 applications in process. Most applications that are on hold require prior commitments to be completed, or are delayed due to land claims, land planning processes or policy constraints.

Agricultural land planning

The 1991 Agriculture Policy places an emphasis on the release of agricultural land through planned agricultural developments. Planned development is preferred because it:

- provides for coordinated use of infrastructure such as roads and hydro;
- places less demand on services such as school bussing;
- allows for the orderly planning of future services; and
- allows agriculture to be developed in accordance with regional and sub-regional plans (where they exist).

To date, nine lots have been released in two lotteries. It is expected that two lots of nine and 19 hectares respectively will be made available near Watson Lake in the summer of 2000, and that a single lot in the Sunnydale area of Dawson City will be ready for sale sometime during the winter of 2000 and 2001.



Horses grazing near Mayo.

A fully cost-recoverable budget was established for Renewable Resources Agriculture Branch in August 1999 to facilitate agricultural land planning. This allows basic infrastructure (roads and power) to be established prior to land sales.

The public, municipalities and First Nations will continue to be part of the planning process for planned agricultural areas. Background work is being carried out for further planned agricultural areas in several different locations.

- A public working group established in the Haines Junction area has developed principles and guidelines for agricultural land development in the Kluane Land Use Planning Area, and has proposed candidate areas for development, subject to the collection of some technical information. The working group has had several meetings and draft recommendations are ready for presentation to the public.
- The Ibex Hamlet Local Area Plan has designated several hundred hectares for future agricultural development.
- A resource plan has identified agricultural potential on a number of sites in the Mayo and Stewart Valley area that may be used for future agricultural land offerings.

Obtaining grazing agreements

Applications for grazing agreements are also submitted to the Agriculture Branch. The process for reviewing grazing applications is similar to that for agricultural land applications. Potential conflicts with wildlife, existing land and resource uses, other land applications, and aboriginal claims must first be researched.

Grazing applications are reviewed and screened initially by Agriculture Branch personnel. Applications then go through reviews by two or three land review and advisory committees (ALARC, LARC, and FTLAC), depending on whether the application is located on Federal or Commissioner's Land. The Agriculture Branch also develops the Grazing Management Plan for the application area, calculates grazing capacities and stocking rates, and performs the related field work and inspections. If sufficient natural graze is found in the application area, and if no major conflicts are identified through the review process, a grazing lease agreement with tenure can be issued.

In some circumstances grazing lease holders may apply to the Agriculture Branch to improve their lease holdings by increasing productivity through some form of range improvement. Lease holders could, for example, request that they be allowed to remove brush or apply various types of fertilizers.

In each of 1998 and 1999, three grazing applications were received by the Agriculture Branch. All six grazing applications are under active consideration.

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PRODUCTION

Overview

Overall production of agricultural products is on the increase in the Yukon. This is evidenced by figures that have been compiled in the Statistics Canada Agriculture Census reports of 1986, 1991 and 1996. The trend continued in 1998 and 1999 with more land coming into production, increasing local forage and greenfeed availability. The opening of the Yukon's first modern abattoir in 1998 triggered an immediate increase in broiler poultry production. There was also a modest increase in beef cattle numbers recorded during 1998-1999.

The amount of land in production continues to expand each year, with 1,104 hectares of new agricultural land titled in 1998 and 1999. Based on policy criteria and development requirements, this resulted in just over 585 hectares of new cultivated land coming into the agricultural land base. This has also resulted in an increase in custom farm work contracted in the Yukon and more agricultural equipment being imported into the territory.

Growing season conditions – 1998 and 1999

Local weather data is recorded at the Takhini Forestry Farm Demonstration Site located in the Takhini River Valley a few kilometres northwest of Whitehorse. The 1998 growing season had slightly higher growing degree day (GDD) values than the 1999 season (Table 1). However, the 1999 season had a longer frost free period and more precipitation than the 1998 season (Table 2).

Growing degree days (>5°C)	728.0	504.0	763.2	823.8	811.1
Effective growing degree days* (>5°C)	859.0	594.7	900.6	972.1	957.1
Frost free period (0°C)	44 days	25 days	45 days	35 days	50 days
Killing frost free period (-2.2°C)	67 days	50 days	74 days	81 days	85 days
Precipitation (mm)	106.6	161.9	124.8	57.4	144.6

* The temperature factor is adjusted upward by 18% to account for the boost plants receive from the long hours of daylight north of 60° latitude.

Table 1: Summary weather data from the Takhini Test Plots (1995-1998)

1998 weather summary

Spring and summer temperatures in southern and central Yukon were generally above normal and precipitation was well below normal. Below normal precipitation in May and June resulted in poor conditions for germination and early crop growth. Temperatures in July and August were still above normal, except for August in southern Yukon, and precipitation was still below normal in southern and central Yukon.

The agroclimatic rating for the 1998 growing season at the Takhini test plots was Class 4 (900-1,050 GDD) which is suitable for the maturation of oats, barley and rye. Although the frost

1988	June 27	July 21	26 days
1989	June 21	August 10	50 days
1990	June 20	July 14	24 days
1991	June 17	August 5	49 days
1992	June 25	August 20	55 days
1993	June 19	August 19	61 days
1994	—	—	—
1995	June 1	July 15	44 days
1996	July 10	August 5	25 days
1997	June 30	August 15	45 days
1998	June 13	July 17	35 days
1999	June 8	July 28	50 days

* Whitehorse airport records a 30-year mean frost free period of 87 days. This is substantially longer than that recorded at the Takhini Forestry Farm. The airport receives winds which tend to keep temperatures above freezing. The forested nature of the Takhini Valley site reduces air movement and makes frost more common.

Table 2: Frost free period by year (0°C) at the Takhini Test Plots.

free period was only 35 days, the killing frost free period (<-2.2°C) was 81 days. The test plots received only 57.4 mm of precipitation, well below the 30-year normal of 115.1 mm. During this growing season, irrigation was critical for crop establishment and growth.

In central Yukon, the agroclimatic rating at the McCabe Creek demonstration site, located 65 kilometres north of Carmacks, was Class 2 (1,200-1,400 GDD) which is suitable for the production of grain and warm season vegetables. This is two classes above the 30-year average for Carmacks.

1999 weather summary

Spring temperatures in the Yukon were generally below normal and precipitation in May and early June was well above normal. The Takhini Valley received over three times the average amount of precipitation, which provided good soil moisture for seed germination and crop growth.

Temperatures in June, July and August were all above normal, contributing to a long frost free period. The hottest and driest weather came at the beginning of August, providing excellent haying conditions in southern Yukon. During the 1999 growing season, the weather station at the Takhini test plots recorded 957.1 growing degree days. Similar to last year, the agroclimatic rating for the site was Class 4 (900-1,050 GDD) which is suitable for maturing oats, barley and rye. The 30-year mean for this site is Class 5 (700-900 GDD) which is considered the limit of arable agriculture and only suitable for forages and cold hardy crops. The long frost free period during this growing season allowed for the maturity of potatoes, carrots, barley and oats in southern Yukon.

PRODUCTION

Overview

Overall production of agricultural products is on the increase in the Yukon. This is evidenced by figures that have been compiled in the Statistics Canada Agriculture Census reports of 1986, 1991 and 1996. The trend continued in 1998 and 1999 with more land coming into production, increasing local forage and greenfeed availability. The opening of the Yukon's first modern abattoir in 1998 triggered an immediate increase in broiler poultry production. There was also a modest increase in beef cattle numbers recorded during 1998-1999.

The amount of land in production continues to expand each year, with 1,104 hectares of new agricultural land titled in 1998 and 1999. Based on policy criteria and development requirements, this resulted in just over 585 hectares of new cultivated land coming into the agricultural land base. This has also resulted in an increase in custom farm work contracted in the Yukon and more agricultural equipment being imported into the territory.

Growing season conditions – 1998 and 1999

Local weather data is recorded at the Takhini Forestry Farm Demonstration Site located in the Takhini River Valley a few kilometres northwest of Whitehorse. The 1998 growing season had slightly higher growing degree day (GDD) values than the 1999 season (Table 1). However, the 1999 season had a longer frost free period and more precipitation than the 1998 season (Table 2).

	1995	1996	1997	1998	1999
Growing degree days (>5°C)	728.0	504.0	763.2	823.8	811.1
Effective growing degree days* (>5°C)	859.0	594.7	900.6	972.1	957.1
Frost free period (0°C)	44 days	25 days	45 days	35 days	50 days
Killing frost free period (-2.2°C)	67 days	50 days	74 days	81 days	85 days
Precipitation (mm)	106.6	161.9	124.8	57.4	144.6

* The temperature factor is adjusted upward by 18% to account for the boost plants receive from the long hours of daylight north of 60° latitude.

Table 1: Summary weather data from the Takhini Test Plots (1995-1998)

1998 weather summary

Spring and summer temperatures in southern and central Yukon were generally above normal and precipitation was well below normal. Below normal precipitation in May and June resulted in poor conditions for germination and early crop growth. Temperatures in July and August were still above normal, except for August in southern Yukon, and precipitation was still below normal in southern and central Yukon.

The agroclimatic rating for the 1998 growing season at the Takhini test plots was Class 4 (900-1,050 GDD) which is suitable for the maturation of oats, barley and rye. Although the frost

Year	Last Frost	First Frost	Frost Free Days*
1988	June 27	July 21	26 days
1989	June 21	August 10	50 days
1990	June 20	July 14	24 days
1991	June 17	August 5	49 days
1992	June 25	August 20	55 days
1993	June 19	August 19	61 days
1994	—	—	—
1995	June 1	July 15	44 days
1996	July 10	August 5	25 days
1997	June 30	August 15	45 days
1998	June 13	July 17	35 days
1999	June 8	July 28	50 days

* Whitehorse airport records a 30-year mean frost free period of 87 days. This is substantially longer than that recorded at the Takhini Forestry Farm. The airport receives winds which tend to keep temperatures above freezing. The forested nature of the Takhini Valley site reduces air movement and makes frost more common.

Table 2: Frost free period by year (0°C) at the Takhini Test Plots.

free period was only 35 days, the killing frost free period (<-2.2°C) was 81 days. The test plots received only 57.4 mm of precipitation, well below the 30-year normal of 115.1 mm. During this growing season, irrigation was critical for crop establishment and growth.

In central Yukon, the agroclimatic rating at the McCabe Creek demonstration site, located 65 kilometres north of Carmacks, was Class 2 (1,200-1,400 GDD) which is suitable for the production of grain and warm season vegetables. This is two classes above the 30-year average for Carmacks.

1999 weather summary

Spring temperatures in the Yukon were generally below normal and precipitation in May and early June was well above normal. The Takhini Valley received over three times the average amount of precipitation, which provided good soil moisture for seed germination and crop growth.

Temperatures in June, July and August were all above normal, contributing to a long frost free period. The hottest and driest weather came at the beginning of August, providing excellent haying conditions in southern Yukon. During the 1999 growing season, the weather station at the Takhini test plots recorded 957.1 growing degree days. Similar to last year, the agroclimatic rating for the site was Class 4 (900-1,050 GDD) which is suitable for maturing oats, barley and rye. The 30-year mean for this site is Class 5 (700-900 GDD) which is considered the limit of arable agriculture and only suitable for forages and cold hardy crops. The long frost free period during this growing season allowed for the maturity of potatoes, carrots, barley and oats in southern Yukon.

Production sectors

Livestock

CATTLE, HOGS AND HORSES

The livestock sector continues to show a slow, steady growth. It is estimated that hog and beef production has increased by one to two percent since the 1996-1997 State of the Industry report.[1] This translates into total cattle and hog numbers both approaching 300 head.

Since the opening of the abattoir in late 1998, there has been an increase in the number of both hogs and beef slaughtered. It is anticipated that numbers will continue to increase because of the availability of a slaughter facility. Current Yukon consumption of pork is about 12,000 animals per year and beef is approximately 5,000 animals per year.

Horse numbers in the territory have remained fairly stable over the past four years.[1] It is estimated that there are 2,500 head of horses in the territory. Approximately 1,000 of these horses are found on Yukon farms. The remainder are owned by hobby operations, outfitters and recreationists.

GAME-FARMED ANIMALS (ELK, WOOD BISON, MUSK OX)

The current trend in game farming in the Yukon is one of slow and somewhat sporadic growth. Elk are the main game-farmed animals in the territory. During the last half of the 1990s, there was a significant increase in the number of elk, with 120 head now on Yukon game farms. Elk products have contributed significantly to the growth of this sector in the territory. Yukon elk breeding stock and antler velvet are considered among the best in Canada.

Black Angus cattle, near Whitehorse

[1]Agriculture Branch estimates based on the number of livestock operations and animals reported in the territory.

Wood bison are also part of the game farming sector. There is one bison operation in the Yukon producing top quality breeding stock.

The Yukon Game Farm has a small herd of musk oxen.

REINDEER

There is one reindeer operation in the Yukon which continues to expand and produce quality animals that they have been selling to farms in the prairie provinces. In addition, the operators of this farm have been instrumental in helping develop a North American Reindeer Breeders Registry.

LLAMAS

This exotic domestic livestock sector started to develop in the mid-1990s and is expected to continue expanding slowly. There is interest in this species for both breeding stock and as pack animals. Llamas are well suited to Yukon conditions and are relatively easy to manage. There are approximately 25 head in the territory.

Poultry

CHICKENS

In the Yukon, the trend in chicken production has always been one of steady growth. However, in 1998 and 1999 there was a strong increase in chickens for meat production because of the opening of the abattoir. In 1999, there was a regular monthly slaughter of birds, and it is now possible to obtain locally produced chickens in Yukon stores. Yukoners consume over 500,000 birds per year, therefore there remains a significant opportunity for growth in this sector.

LAYERS/EGG PRODUCTION

This sector continues to expand. It is estimated that 102,000 dozen eggs are now produced annually which meet approximately 20% of the Yukon's consumption requirements.[2] This sector will continue to expand because real growth opportunities remain. A considerable number of small laying flocks are kept for on-farm and local rural community needs.

TURKEYS

Production of turkeys continues to expand with approximately 1,000 birds being raised in the territory. Although the pattern of consumption is seasonal, there are opportunities for substantial expansion in the production of turkeys. There is currently one farm operation raising wild turkeys for meat sales.

OTHER

There are a limited number of ducks, geese and game birds raised in the Yukon. The growth trend is positive, but limited to seasonal and niche markets.

Field crops

GRAIN

The production of cereal grains in the Yukon is primarily limited by climatic conditions, especially the high risk of frost during the growing season. There has been a modest increase in grain production in the territory over the past two to three years. The next several years will see

[2]Agriculture Branch estimates based on the number of laying hens in the territory.

further increases in production due to the use of new, earlier maturing grain varieties, increasing accessibility to more appropriate harvesting equipment, and the fact that there is now more on-farm grain storage infrastructure in place. As the livestock sector continues to expand, there will be increased demand for locally produced feed grains. In addition, demonstration work undertaken by the Agriculture Branch has shown that it is possible to produce some cereal grains on a consistent basis.

GREENFEED

Greenfeed involves the production of oats and sometimes barley and fall rye as forage crops. There has been a dramatic increase in greenfeed production over the past few years and it is estimated that there could be 2,500 acres in production. This is up from 1,700 acres in 1997. The summer of 1999 was excellent for greenfeed production because of very favourable growing conditions. The most common greenfeed is oats, which is usually harvested with a binder (bundles) or a baler (bales) before it matures.

FORAGE CROPS

Tame forage production is one of the main activities in the development of the agricultural sector in the Yukon. Forage production is primarily based on the growing of bromegrass and to a lesser extent, timothy, and a legume such as alfalfa. It is estimated that forage acreage in the last two years has increased by five percent which means there are now 4,200 acres in production. Yukon forage producers grow a good quality product with protein levels between 10% and 12%. There continues to be room for expansion in production since the Yukon produces only about 50% to 55% of its consumption requirements.

Greenhousing

Greenhousing in the Yukon represents the largest sector of horticultural sales. The 1996 census recorded 31 commercial operations in the territory and approximately 7,517 m^2 of crops under cover. In 1998-1999, growth of the industry continued to be strong with Harmony Farms entering into commercial production in the Whitehorse area retailing tomatoes, cucumbers and

Dominion Experimental Farm, Haines Junction, late 1950s.

peppers through a number of outlets around the city. Other smaller greenhouse operations have emerged in the competitive spring bedding plant market in both Whitehorse and Dawson City.

Crops other than flowers and vegetables that are grown in greenhouses include herbs and forestry tree seedlings, which accounted for almost 162 m^2 of production (1996 Census).

Vegetables and berries

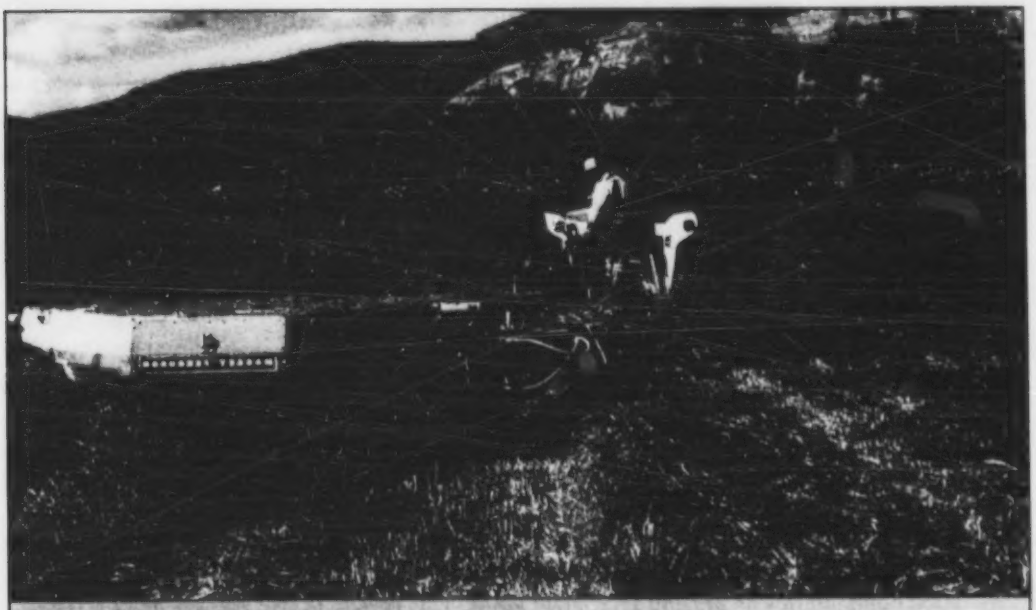
Between 1991 and 1997, production of both field vegetables and berries declined in the Yukon. The 1996 census reported only 4.4 acres of berries being grown, and less than 30 acres devoted to vegetable production spread over 27 different farms.

In 1998, field trials to test the commercial viability of several raspberry varieties began on a commercial farm west of Whitehorse. In 1999, young entrepreneurs started a new market garden operation which supplied organic produce to the Whitehorse market. In addition, two local growers expanded into field scale production of nursery stock for the landscaping industry. Growth over the past two years in this sector can be measured one farm at a time.

Most produce is marketed fresh through retail stores, farmer's markets and direct sales. Lack of mechanization, cold storage facilities and a permanent site for the farmer's market in Whitehorse are limiting factors in production and marketing of both vegetables and berries.

Honey production

Honey produced in the Yukon is of high quality because of the wide range of wild flowers available, particularly fireweed. However, the level of honey production in the territory remains low. This is unfortunate because there are a number of well trained beekeepers who have made every attempt to produce honey on a larger commercial basis but have found conditions too difficult due to a short growing season and cool springs and summers. Some small scale hobby operations are producing excellent honey, but volumes are small.



Hay harvest, near Carmacks.

YUKON GOVERNMENT SERVICES AND PROGRAMS

Department of Renewable Resources

Yukon Agriculture Branch

The Yukon Agriculture Branch was established on April 1, 1986 with a staff of one part-time and two full-time employees. With the growth of the agricultural sector over the past decade, the Branch has grown to six permanent employees, including a Director, Administrative Assistant, Agriculture Development Officer, Agrologist, Land Disposal Coordinator and a Soils Technician. There is also one auxiliary Grazing Management Coordinator, one auxiliary on-call Agriculture Technician and one auxiliary on-call Meat Inspector.

The Director is responsible for the overall management and administration of the Branch. Duties include developing policy and regulations, developing and managing the budget and finances, administering extension programs, supervising staff, and meeting with the public, both in the office and on their farms.

The Administrative Assistant's responsibilities include administrative support to the employees of the Agriculture Branch, their activities and programs, and to the Agriculture Canada office. This person greets the public when they arrive at the Branch office, assists them or refers them to the proper staff member. This person also plays an active role in planning conferences, seminars and other extension functions.

The Agriculture Development Officer's responsibilities include inspecting lands under Agreement for Sale, on-farm extension services, coordination of livestock control measures and pounds keepers, coordination of the Canada Plans Service (CPS) and Prairie Farm Rehabilitation Administration (PFRA) activities in the Yukon. This person also assists land applicants with the development of farm management plans and attends committee meetings addressing land-related issues.

The Agrologist is responsible for design and management of the Agriculture Branch research and demonstration program, farm production and marketing-related extension work, and publication of the Branch quarterly newsletter, *InFARMation*, as well as yearly research reports. The Agrologist also works throughout the year on educational seminars, courses and conferences for growers and producers.

The Land Disposal Coordinator receives, processes and tracks agricultural land applications, and maintains a database of these applications.

The Soils Technician provides technical support to the Branch and is responsible for identifying and evaluating agricultural capability. This person is also involved in grazing land assessments, planning in the agricultural land program, database compilation and analysis, as well as numerous extension activities.

The Grazing Management Coordinator develops grazing management plans for grazing leases. This person is responsible for identifying and evaluating plant species and natural vegetation communities on grazing agreement lands. This person is also responsible for range

improvement programs, grazing management agreement development and administration, and related extension work.

The Agriculture Technician assists in research plot establishment, maintenance and harvest, as well as data collection, summarization and database compilation. This person helps in developing and implementing new research projects, and is responsible for setting up and monitoring test site weather stations. The Agriculture Technician also assists in writing research reports, State of the Industry reports, and the Branch quarterly newsletter, *InFARMation*.

The Meat Inspector is responsible for inspecting meat and poultry at slaughter times in the abattoir. Disease and quality are checked to ensure consumer safety. The Meat Inspector also advises livestock producers on animal health and nutrition, and production of quality meats.

The Agriculture Branch had an Operation and Maintenance (O&M) budget allocation of $568,000 in 1997-1998 (a six percent decrease over 1996-1997), and $606,000 in 1998-1999 (a seven percent increase over 1997-1998).

Approximately half of the Branch's staff time was devoted to various forms of extension services and administration. About 10% was dedicated to inspections and regulatory activities. An increasing proportion of time is being allocated to agricultural land and land application issues. Staff also spent a significant amount of time on policy development, infrastructure and event planning, marketing projects, and attending Land Use Planning, Agricultural Association and Agricultural Planning and Advisory Committee meetings.

Research and Demonstration

FORESTRY FARM DEMONSTRATION PLOT

The Agriculture Branch has maintained demonstration plots at the Takhini Forestry Farm since 1988. The initial thrust was to test a wide variety of crops for suitability in the Yukon. This phase complemented the Yukon Crop Development Program that ran from 1985 to 1990.

The second phase of this project saw a reduced emphasis on variety testing and more work on soil conservation techniques. Different varieties of legumes were tested for productivity and nitrogen fixing capability. A variety of green manures were tested, including field peas, lentils and oats. The results of these trials were documented in the Agriculture Branch research reports in 1990, 1991, and 1993.

In 1995, a four-year trial to increase soil organic matter and improve soil tilth was initiated at the Takhini demonstration site. A horticultural crop followed a three-field rotation of plow down crops. Records were kept of soil pH, organic matter, and economic inputs and returns so farmers could be advised on the costs associated with the program. Results were published in the annual publication, *Yukon Agricultural Research and Demonstration Report* (see Appendix).

During the 1998 growing season, the Takhini test plot experienced the highest number of growing degree days and the longest killing frost free period during the four-year trial. The agroclimatic rating was Class 4. The plots received minimal precipitation and irrigation was critical for crop establishment and growth.

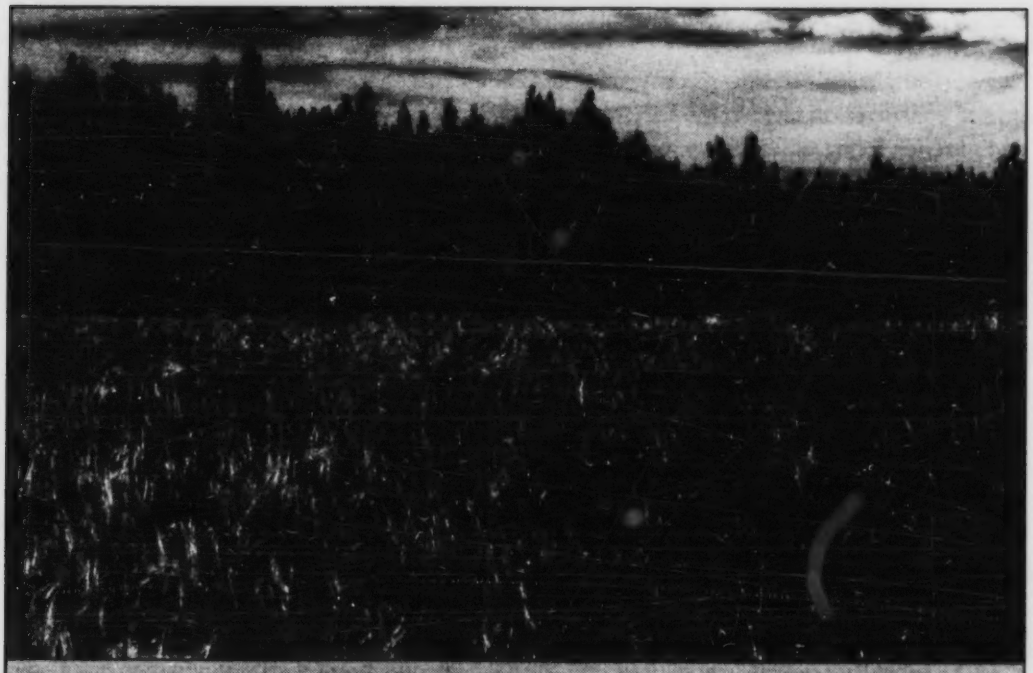
The level of organic matter in the soil did not change very much over the four-year soil improvement trial. However, visually the soil tilth and structure did improve to the point where compaction was unlikely. There was also a notable increase in fertility which can be attributed to the return of nutrients to the soil by green manuring with plow down crops.

The potato crop was only successful two out of four years. More frost tolerant vegetables (cabbage and rutabaga), which were included in the trial in 1996, provided economic diversification resulting in positive returns.

The 1999 growing season was the first year in a four-year grain maturity trial undertaken at the Takhini Forestry Farm. The purpose of this trial is to measure the economics of production and management inputs required to mature grain in southern Yukon. Cash crops, including potatoes and carrots, were also grown at the Forestry Farm to test different varieties and determine profitability.

The agroclimatic rating for the 1999 growing season at the Forestry Farm was Class 4. Although temperatures were below normal in May, the Takhini Valley received over three times the average amount of precipitation which provided good soil moisture for seed germination and crop growth. Temperatures in June, July and August were all above normal, contributing to the longest frost free period in over five years. The hottest and driest weather came at the beginning of August, providing excellent haying conditions in southern Yukon.

Horticulture crops consisted of "Norland" potatoes and "Vita Treat" carrots. The longer period between killing frosts and an early potato variety provided the most mature crop of potatoes grown at this site in five years. One of the two sets of five rows of carrots was covered with "Remay" row covering to see if germination and/or yield would be improved compared to the



Grain maturity trial at the Takhini Forestry Farm.

row without "Remay." When the row cover was removed, the carrot tops and weeds under the "Remay" were larger than those in the rows without a covering. However, at harvest there was no difference in quality or quantity between the two treatments.

The barley crop was grown for 135 days and at time of sampling, the grain was dry enough to store directly. The barley plot produced a marketable harvest of 6.08 tonne/ha (5,424 lb/ac). The wheat plot produced a marketable harvest of 3.29 tonne/ha (2,931 lb/ac). The wheat grain harvested would have been fine for feed, but it was poor seed quality and would have required drying to be stored. The oat plot was sampled when 90% of the grain was mature. This plot produced a marketable harvest of 4.67 tonne/ha (4,160 lb/ac).

MCCABE CREEK GRAIN TRIALS

In 1995, a four-year grain trial was initiated at McCabe Creek Farm, 65 kilometres north of Carmacks. The purpose of the trial was to demonstrate the effect of irrigation on grain production in central Yukon. Three plots of barley, wheat and oats were seeded each spring under dryland conditions. Three plots of the same crop were then replicated under irrigated conditions for comparison.

The agroclimatic rating for the 1998 growing season at McCabe Creek was Class 2. This is two classes above the 30-year average for Carmacks.

Similar to previous years, the irrigated yield was higher than the non-irrigated yield in 1998. Over the four-year trial, irrigated grains yielded an average of two and a half to three times more bushels per acre than the non-irrigated grains.

McCabe Creek grain trial.

RASPBERRY VARIETY TRIAL

The summer of 1999 was the second growing season in a multi-year raspberry variety trial undertaken at a farm located on the north side of the Takhini River. The purpose of the trial is to test the commercial viability of six raspberry varieties using various soil amendment techniques.

The soil at the trial site is mainly silt/loam, pH is above neutral and salinity levels range from slightly to moderately saline. In an attempt to lower the alkalinity level of the soil, the trial plot was divided in half and sulfur was applied to the top section.

In 1998, six varieties of raspberries were planted in 30.5 metre rows. Varieties included Kiska, Boyne, Souris, Red River, Double Delight and Honey Queen. Three rows of each variety were planted. Before planting, a commercial farm fertilizer was applied to the first row, an organic fertilizer was applied to the second row, and the same organic fertilizer and shredded peat moss was added to the third row of each variety. A drip irrigation system was being used to water the raspberry plants.

At the end of July 1998, the plants were assessed to determine transplant success and health as they entered their first winter. Overall, Boyne and Honey Queen were the healthiest, and Red River had the most unhealthy or dead plants. On June 11, 1999, the plants were assessed to determine how well they overwintered. Overall, Boyne had the greatest number of healthy plants, and Red River had the least. On June 12, the dead raspberry plants were replaced with new stock. However, the new planting stock was not of very good quality and most of the replacement plants did not take. At the end of the 1999 growing season, Boyne had the strongest growth and fruit set, Double Delight was second in vigour, and Honey Queen was third. Both Souris and Red River displayed poor to moderate growth in the second year.

Extension services

GENERAL

The Agriculture Branch provides a variety of on-farm and in-office consultation services to producers throughout the territory. These services provide linkage between new research and on-farm applications of information and technology. In 1998 and 1999, specialists were brought in from Alberta and Alaska to share with Yukon producers their expertise in irrigation systems, farm finance, cereal crops and game farming.

The Branch also maintains a collection of agricultural resource materials for reference. The collection includes books, pamphlets and videos on a wide range of agricultural subjects, as well as a herbarium and a display of garden insects.

A quarterly bulletin, *InFARMation*, has been produced by the Branch since 1987 to keep producers updated on industry activities and events. It contains articles on crops, sustainable agriculture, extension services, livestock, industry trends, and research and demonstration projects. Circulation has increased from about 300 copies per issue in 1994 to approximately 500 copies in 1999.

The Canada Plan Service, available at the Agriculture Branch office, has over 100 plans available for the construction of agricultural facilities. Plans are available for most farm buildings, root cellars, livestock shelters, animal chutes and grain storage structures. Up to 30 of these plans are used by Yukon producers each year.

The feed, soil and irrigation water testing service is one of the most popular programs offered by the Branch. Commercial farmers can bring in samples for shipment to laboratories for analysis. In this way, producers can determine if their soils, feeds or water source are deficient in any important nutrients, and can take corrective action.

1998-1999 SEMINARS AND SYMPOSIA

The semi-annual agricultural symposia sponsored by the Agriculture Branch are very popular. They provide local producers with an opportunity to share their experiences and to hear from experts on a variety of topics. In 1998 and 1999, symposia were held in Dawson City and Whitehorse.

On February 5, 1998, two half-day seminars were held in Whitehorse. The morning session was for producers in the livestock industry. It featured buyers from the retail sector of the meat industry and a presentation on the Partridge Creek abattoir. The afternoon session featured a seed exchange and information session for local gardeners. This seminar was also presented in Dawson City on February 7.

The 11th annual North of 60° Agriculture Conference was held in Whitehorse during November, 1998. This conference featured an open house with a variety of agencies and specialists available to meet with farmers on a one-on-one basis. Concurrent with the open house, two presentations were made in the next room on equine nutrition and interactions between domestic livestock and wildlife.

In March, 1999, two local greenhouse experts drew a crowd of over 150 people to a full-day seminar in Whitehorse on northern production and hydroponics. The seminar was repeated in Dawson City later in the week.

An information night on Equine Infectious Anemia (Swamp Fever) was presented by the Branch in association with the Yukon Horseman's Association and Yukon Veterinary Services on May 5, 1999. The seminar was held in response to growing concerns about the disease and to provide information to horse owners on how to prevent the disease from being imported into the Yukon.

On November 5, 1999, as part of the 12th Annual North of 60° Agriculture Conference, a full day farm finance forum was held to bring lenders, programs and producers together. The following day, a presentation on northern cereal grain production was made by Dr. C. Knight from the University of Alaska, Cooperative Extension Service. Following Dr. Knight, the Yukon Game Growers Association, together with the Agriculture Branch, sponsored presentations from Alaska and Alberta on the game farming industry.

MASTER GARDENER COURSE

The second Master Gardener course was held over two weekends in January, 1999. Agriculture Branch staff instructed 24 experienced northern gardeners in 12 different subject areas of horticulture. Students are provided with training for a small fee and a commitment to return 40 hours of volunteer time back to the community to educate other northern gardeners. The third Master Gardener course was held in January 2000.

M121

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PUBLIC CONTACTS

Table 3 summarizes the Branch's public contacts from 1995 to 1999.

Activity	Number of contacts				
	1995	1996	1997	1998	1999
Telephone calls	2,475	2,643	2,461	2,482	2,358
Office visits	907	1,263	1,227	1,183	1,069
Farm visits	264	261	215	213	205

Table 3: Summary of contacts by the Yukon Agriculture Branch with the public, 1995-1999.

Policy initiatives

Agriculture and grazing lease policy evaluations

In November, 1998, a consultant was hired by the Department of Renewable Resources to conduct a comprehensive, external evaluation of the Agriculture and Grazing Lease Policies. The process, which occurred between November, 1998 and July, 1999, included an inter-departmental working group, an advisory committee and extensive stakeholder and public consultation.

Several recommendations for changes to the policies were suggested by the various stakeholders and the public during the evaluation. These recommendations, combined with in-depth analysis of the policies, resulted in a final report by the consultant in July, 1999. The evaluation is now complete and the Department is considering the next steps in regards to releasing the evaluation reports as well as reviewing the recommendations put forward by the consultant.

Training initiatives

Education and Training Trust Fund

The Education and Training Trust Fund (ETTF) is administered by an independent committee of the Yukon Agricultural Association with representation from all outlying communities. The purpose of the fund is to enable agriculture-related education and training of Yukoners. The ETTF Committee will award funds to projects aimed at increasing the knowledge and skills needed to develop a strong, diversified agricultural economy.

There are five broad categories for projects: farm management, homesteading, agricultural methods, farm efficiency strategies and market diversification. The program will be delivered from 2000-2003.

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INFRASTRUCTURE DEVELOPMENT

Abattoir

In October, 1998, the Yukon's first abattoir, built to territorial standards, opened for business at Partridge Creek Farm near Stewart Crossing in central Yukon. This commercial venture resulted from a call for proposals from the private sector to provide land, and construct and operate a multi-species abattoir. Limited government assistance was provided to help purchase specialized slaughtering equipment.

The abattoir building is 2,280 square feet and is designed to handle a variety of species including hogs, cattle, sheep, game farmed animals and poultry. In 1999, seven different farms sent chickens, turkeys, hogs and beef cattle through the facility. Fresh chicken was available at a number of retail outlets, and the Westmark Hotel in Dawson City featured fresh "Yukon Grown" on their summer 1999 menu.

Working in the abattoir.

The Agriculture Branch hired and trained an auxiliary on-call Meat Inspector in 1998. In 1999, the abattoir became a fully licensed facility. The government has further contributed to the infrastructure by purchasing chicken and turkey transport cages and a corral and chute system to be used to collect animals from farms in other areas of the Yukon.

Veterinarian services

The Yukon is serviced by two veterinary clinics located in Whitehorse, and a new veterinary clinic which opened in Dawson City in 1998. One of the Whitehorse veterinarians travels to various communities and farms to provide large animal veterinary services. The Agriculture and Agri-Food Canada veterinarian in Dawson Creek, B.C. also visits the Yukon to test game farmed and domestic animals for brucellosis and tuberculosis.

Farm capital

The number of farms in the territory has increased with 36 new agricultural titles issued between May 1996 and the end of 1999. The value of farm infrastructure, land and machinery has begun to make a significant contribution to the Yukon economy. Based on the value of total farm capital and farm operating expenses, it is clear that the agricultural industry is now a major player in the purchase of local goods and services.

Mayo grain storage

In 1998, the Stewart Valley Chapter of YAA utilized Community Adaptation and Rural Development funding to construct a community grain storage facility in Mayo. Two eight-foot by 24-foot sheds were constructed by volunteers from locally milled lumber. Each shed contains two bins with a ten tonne grain storage capacity. A scale, auger and feed roller were also purchased for community use.

JOINT FEDERAL-YUKON PROGRAMS

Canadian Adaptation and Rural Development Fund

The Canadian Adaptation and Rural Development (CARD) Fund is a federal program administered by the Yukon Agricultural Association designed to assist rural and agricultural people and communities adjust to the changing economy.

In 1997, the Yukon Agricultural Association applied for, and received $250,000 for two years of program funding to be distributed to projects around the Yukon. Projects focused on four

Project titles	CARD fund contribution
Potato Variety Trials	$6,000.00
YAA Klondyke Harvest Fair	$14,445.00
Organic Certification Officer Training	$1,000.00
Downtown Community Urban Garden	$12,600.00
Production of a Yukon Wild Mushroom Guide	$2,600.00
Public Service Announcement Radio Campaign on Agriculture Awareness	$7,500.00
YAA Circumpolar Conference Attendance	$10,106.45
YAA Farmer's Market	$5,000.00
Mayo Community Granary	$9,074.00
YAA Agriculture Policy Review	$14,100.81
Yukon Gardener's Course Manual Production	$3,974.00
Agriculture Land Assessment	$7,500.00
YAA Grades 11 and 12 Careers in Agriculture	$7,950.00
YAA Grades 3 and 4 Agriculture Awareness	$9,260.00
Organic Farm Inspector Training	$2,275.00
Horse Care in the North Manual Production	$7,500.00
From Seeds to Harvest Seminars	$4,820.00
4-H Yukon Human Resource Development	$7,500.00
4-H Yukon Infrastructure Development	$5,625.00
Soil Test with Elemental Sulphur Trials	$4,470.00
Native Plant Study	$6,686.00
Raspberry Variety Trials	$7,662.00
Meat Inspector Training	$7,293.00

Table 4: Summary of CARD projects funded in 1997.

JOINT FEDERAL-YUKON PROGRAMS

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Potato Variety Trials	$8,000.00
YAA Klondyke Harvest Fair	$14,445.00
Organic Certification Officer Training	$1,000.00
Downtown Community Urban Garden	$12,600.00
Production of a Yukon Wild Mushroom Guide	$2,600.00
Public Service Announcement Radio Campaign on Agriculture Awareness	$7,500.00
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Native Plant Study	$6,696.00
Raspberry Variety Trials	$7,992.00
Meat Inspector Training	$7,293.00

Table 4: Summary of CARD projects funded in 1997.

program areas; rural human resource development, infrastructure development, marketing and consultation, communication and public awareness. A summary of projects funded is shown in Table 4. Copies of the project results may be obtained from the Yukon Agricultural Association office.

On March 29, 1999, the federal Agriculture Minister Lyle Vanclief announced the renewal of the CARD program. The program, which has been extended indefinitely, will build on the successes of past years and move into six new priority areas. Developed in collaboration with industry and provincial representatives, these priorities — innovation, market opportunities, environmental sustainability, food safety and quality, rural development and human resource capacity — will be addressed in the next round of programming.

The Yukon will receive $498,816 over a four-year period. Renewal of the program will offer fresh opportunities to continue the partnerships that have developed over the first four years of the program, as well as providing new opportunities for the CARD council.

Agriculture Planning and Advisory Committee

The Agriculture Planning and Advisory Committee (APAC) was established in 1984 to provide a mechanism for ongoing consultation between the federal and territorial governments and the agricultural industry in the Yukon. The committee has a mandate to make recommendations to the Minister of Renewable Resources on any agricultural issue. It is chaired by the president of the Yukon Agricultural Association or their designate, and co-chaired by a senior Yukon government representative.

APAC held six meetings in 1998 and 1999. The committee met in Whitehorse and Dawson City to discuss such issues as the Agriculture Policy Evaluation, planning for the CARD Fund, the establishment of the abattoir, the fall fair program, the Education Training Trust Fund, Circumpolar initiatives and the farmer's market program.

FEDERAL GOVERNMENT SERVICES AND PROGRAMS

Agriculture and Agri-Food Canada

The 1998-1999 time period was one of change for Agriculture and Agri-Food Canada (AAFC) in the Yukon. The long-term AAFC Research Branch employee, Scott Smith, was relocated from Whitehorse to the Pacific Agri-Food Research Centre in Summerland, B.C. Scott will continue to manage Yukon research activities, along with his expanded role as manager of B.C. research. Research work will continue in the Yukon, with the possibility of a range of scientists from Summerland periodically visiting and working here.

With the departure of the Research Branch employee, AAFC chose to create a general staff position located in Whitehorse to cover off the other programs and services they provide. This position aims to provide general guidance on AAFC and Canadian Food Inspection Agency (CFIA) programs, and reports to the Market and Industry Services Branch (MISB) – Alberta and Territories Office in Edmonton. This person shares an office location with the Yukon Agriculture Branch.

Research Branch

Trials to assess the feasibility of using elemental sulphur to reduce soil pH are on-going on irrigated stands of bromegrass in the Takhini Valley. The project was funded by CARD to look for cost-effective ways to reduce the alkalinity and boost yields in some southwest Yukon cultivated soils. First year results show a slight reduction in the soil pH, but no impact on bromegrass yield. Previous research in western Canada indicates that at least two years are needed before yields might increase as a result. The trials will be monitored for another year and a final assessment will be published in the spring of 2001.

Soil monitoring continues through a network of air and soil temperature sites in the territory. Impacts on permafrost conditions of clearing land in the Klondike Valley continue to be monitored, as well as impacts of snow depths on winter soil temperatures in the Takhini Valley. Winter soil temperatures are important for understanding the survival of legumes and some grasses in the Whitehorse area. Reduced snow loads allow soils to reach very low temperatures, which can damage root systems.

Finally, work continues on detailed and generalized soil maps of the territory.

Market and Industry Services Branch

The Market and Industry Services Branch (MISB) works closely with industry, the Yukon Agriculture Branch, and the Yukon Department of Economic Development to enhance the Yukon agri-food sector's share of domestic and international markets. The Branch continues to be an ex-officio member of the Yukon Agricultural Planning and Advisory Committee.

MISB focuses on international business development services for the Canadian agri-food exporter through the delivery of the Agri-Food Trade Service (ATS). Through close coordination between AAFC and the Department of Foreign Affairs and International Trade (DFAIT), ATS

aims to provide centralized access to international market information, export trade counseling and export support activities.

Within this, ATS links regional offices with national experts and Agri-Food Trade Commissioners in Canadian embassies. Through the ATS, Yukon companies have been listed in the WinExport database that is accessed by 1,200 Canadian trade staff in Canada and abroad. These same Yukon companies are receiving notification of available trade documents, international trade statistics, regulatory information, trade leads and market studies through the Fax Back systems implemented by MISB, and are taking advantage of the trade programs offered both domestically and in conjunction with international trade shows.

Policy Branch

The Policy Branch of AAFC provides a variety of programs to assist agricultural producers to adapt to the changing regulatory and economic conditions facing the industry. In August, 1997, Minister Vanclief announced funding of $250,000 to the Yukon Agriculture Association through the CARD Fund. This funding has recently been renewed, and YAA will receive $498,816 through to the end of March 2003.

In 1999, in association with CARD, the Canadian Farm Business Management Council granted membership on a two-year rotational basis to the Yukon government and the Yukon Agricultural Association.

Canadian Food Inspection Agency

The Government of Canada has consolidated all federally mandated food inspection and quarantine services into a single federal food inspection agency. The Canadian Food Inspection Agency (CFIA) began operations in April, 1997 and reports to Parliament through the Minister of Agriculture and Agri-Food.

All inspection services related to food safety, economic fraud, trade-related requirements, and animal and plant health programs are provided by CFIA. Staff monitor the safety and quality of fish, meats, dairy products, fruits and vegetables — both fresh and processed. They register and inspect processing plants to ensure they meet federal standards, and monitor imports to ensure that food entering Canada meets the same stringent standards set for our own producers. Also, when Canadian food is shipped to other countries, inspectors are often asked to certify that the products meet the requirements of the importing country.

Within the Yukon, CFIA provides inspection for the federally registered egg grading station and fish processing plant. In addition, inspections occur at Yukon food producing establishments for such products as smoked salmon, bottled water and beer under the Food and Drugs Act, and processed products which do not fall under specific federal legislation.

The CFIA works to stop diseases and pests from entering Canada and to control or eradicate diseases if they occur. They also certify plants and animals that Canada exports around the world. Animal health services for the Yukon are provided by the Dawson Creek, B.C. office which does herd testing and health certificates for the export of livestock and pets. This office also works with the Yukon Agriculture Branch in an advisory capacity for the territorial abattoir.

The CFIA examines labels on food products to ensure their accuracy. This includes checking quantities and verifying the composition, nutritional information and grade of processed foods.

Retail inspections of Yukon grocery stores occurred in 1999 to ensure food products were accurately labeled.

Rural Secretariat

The Rural Secretariat of Agriculture and Agri-Food Canada is a focal point for rural policy development and rural issues within the federal government. The Rural Secretariat, through the Canadian Rural Partnership (CRP) and the individual programs and services delivered by federal departments and agencies, is acting on the Government of Canada's commitment to build stronger rural communities.

THE CRP FOCUSES ON FIVE AREAS:

1. Partnerships

Partnerships help government work better across all levels of jurisdiction: federal, territorial, municipal and First Nation. To work on partnerships, there is an interdepartmental working group of 26 federal departments. In addition, there are area rural teams in each province and territory. The rural team in the Yukon includes members from federal, territorial, municipal and First Nation governments, as well as private sector and non-profit organizations.

2. Rural dialogue

In order to better understand local and regional issues, and to identify the appropriate role for the federal government in addressing these issues, a dialogue with rural Canadians was conducted. From May to July 31, 1998, feedback was gathered from almost 7,000 rural Canadians about their challenges, priorities and opportunities. Input was collected through individual and group submissions of the Rural Dialogue Workbook, and 33 regional sessions

Trapper's garden.

held across the country. The Yukon Rural Team held dialogue sessions in the communities and provided input to the Rural Secretariat.

3. Rural lens

A significant component of the CRP is to promote and foster a greater inclusion of rural considerations in federal policies and programs. Decision makers are being asked to assess the effect of new policies and programs on rural Canada, whether federal programs and services are accessible in rural areas and whether there is flexibility for decision making at the local level.

4. Information outreach

The Government of Canada is making a special effort to reach Canadians in rural and remote areas. Through community newspapers, radio stations, the Internet and federal points of public access, information about federal programs and services is being made accessible to citizens in rural and remote areas of the country. In 1998, the Yukon Rural Team published an insert newsletter in the Yukon newspapers to inform citizens of their activities.

5. Pilot projects

The CRP Pilot Projects Initiative is designed to work through partnerships with community groups operating in rural areas. These can include the private sector, the voluntary sector, co-operatives and other levels of government. Pilot projects are carried out in each region and involve the local rural team. In the first round (1998) in the Yukon, funding was provided for the Yukon on-line project, the Yukon Youth Community Development Training Pilot Project and the Yukon Lodgepole Pine Project. For 1999, successful pilots were the Liard Basin Task Force: Building Healthy Communities and Capacity Building Through Partnerships — Yukon First Nations and the government.

INDUSTRY ASSOCIATIONS

Yukon Agricultural Association

The Yukon Agricultural Association (YAA) is a non-profit organization which was created to protect the interests and promote the development of the agricultural industry in the Yukon. The association works closely with government to achieve its goals. The association is comprised of three chapters: Whitehorse, Stewart Valley and Dawson City. An association office is maintained in Whitehorse.

YAA efforts in 1998 and 1999 were devoted to the following initiatives:

- public education and awareness about the association and the agricultural industry;
- Klondyke Harvest Fair program;
- fundraising through raffles and membership sales, as well as obtaining funds from the Yukon government for the Klondyke Harvest Fair and for the Education and Training Trust Fund, and from the federal government under the Canadian Adaptation and Rural Development Fund I & II, the Canadian Farm Business Management Council and the Agriculture and Agri-Food Awareness Program;
- numerous meetings and reviews about issues and concerns surrounding the agricultural industry including the Canadian Farm Business Management Council, Agriculture Policy and Advisory Committee (APAC), Canadian Young Farmers and Network of French Speaking Farmers;
- participation in events including the Annual Agricultural Symposium, Canada Day, Trade Show and Agri-Food Celebrations; and
- Farm Industry and Education in the Classroom/Heritage Canada.

The Yukon Agriculture Association can be contacted at:
Box 4703, Whitehorse, Yukon Y1A 3V7
Phone (867) 668-6864
Fax (867) 393-3566
E-mail: yukonag@internorth.com

Game Growers Association

The Game Growers Association of Yukon was established in 1989 to represent and promote the Yukon's game farming industry. The association has grown from five members in 1994-1995 to 16 in 1999.

The number of elk being farmed in the Yukon has shown a slow but steady increase, particularly in the later half of the 1990s. In 1995, there were approximately 70 elk in captivity; this has increased to 120 elk in 1999.

The Game Growers Association has become increasingly active in national and western associations and committees. President Dan Nowlan participates on the Canadian Venison Council, a national organization promoting and developing policies on game farming in Canada. The Yukon Association also liaises with the Alberta Venison Council.

Elk breeders from Alberta, Saskatchewan, Manitoba, Ontario, Quebec and the Yukon formed a national association in 1999 called the Elk Breeders of Canada. They hope this national association will give them more lobbying power and national presence.

The Game Growers Association has been very active promoting the game farming industry. During November 1999, the Agriculture Branch and Game Growers Association co-sponsored a game farming seminar for which they brought in speakers from Alberta and Alaska. The seminar was well attended by local Yukoners interested in game farming.

Yukon 4-H Program

The 4-H program is an international youth program dedicated to social and technical skill development of young people. "4-H" stands for the pledging of heart, health, head and hands to community service and responsibility.

The Yukon 4-H program has clubs in Whitehorse, Watson Lake and Dawson City. There are a total of four clubs, including two dog clubs and two horse clubs. There are approximately 60 club members and 10-12 adults helping out as leaders or in other capacities.

The Yukon 4-H Council was very active in 1998 and 1999. Several meetings were held generally in the form of conference calls made from the Agriculture Branch. This made it possible to easily connect to the communities with minimum expense and travel. The council's main roles are to ensure the smooth delivery of the 4-H program and to obtain funding for various 4-H activities such as exchanges, leadership workshops and other forms of training.

Highlights of the 4-H program over the past two years include the establishment of a territory-wide public speaking contest, obtaining CARD funds for travel and training purposes, participation in the Klondyke Harvest Fair, and holding various types of training sessions and workshops.

MARKETING AND PUBLIC AWARENESS

Klondyke Harvest Fair

The Klondyke Harvest Fair is the major annual public awareness initiative of the Whitehorse Chapter of the Yukon Agricultural Association. The fair is held over a weekend in August at Rotary Peace Park in downtown Whitehorse. The bench show is a major attraction for both exhibitors of crafts and agricultural products and the thousands of people attending the fair each year. In addition to the bench show, there is a farmer's market, midway, livestock display, entertainment and food concessions.

Other smaller fairs also took place in 1998 and 1999. Watson Lake, Carmacks, the Hamlet of Mount Lorne and Mayo all hosted fairs in their communities.

Media coverage

The Yukon's media coverage of agricultural events and activities reflected the prominent issues in 1998 and 1999. The *Whitehorse Star* published 10 letters and articles on agricultural issues during those two years, three items in 1998 and seven in 1999. The *Yukon News* published two articles in 1998 and seven in 1999. Articles covered such items as the Klondyke Harvest Fair and the construction of the abattoir.

John Harmon writes a weekly column entitled "The Real Dirt" for the *Yukon News*. This column covers various sectors of the agricultural industry, including information on houseplants, gardening advice and soils.

Two articles written by Roy Ness on gardening in the north were published in the *Canadian Living* magazine, one in 1998 and one in 1999.

The Yukon Agriculture Association produced several radio spots which were aired from early October to early November. They provided information on such topics as soils, the abattoir and meat production.

School presentations

In 1999, two agricultural education programs were offered in local schools by the Yukon Agricultural Association. The purpose of the first project was to provide awareness of the agricultural industry and healthy farm practices, through the education of Yukon children in grades 3 and 4. In-class demonstration sessions, video presentations and field trips were used in the program. The second project focused on grade 11 and 12 students to provide a higher awareness of agriculture as a career. Presentations on the different options available in farming and agri-business were made throughout the spring semester.

APPENDIX

Yukon Agricultural Extension Publications, 1998-1999

Agriculture Branch, Department of Renewable Resources. *InFARMation* (Quarterly Bulletin). Compiled and edited by T. Hill and B. Sproule.

Hill, T. and Sproule, B., 1998. *Shakwak Highway Revegetation: km 1841.6-1965.8, Progress Report #1*, Department of Renewable Resources, Government of the Yukon.

Hill, T. and Sproule, B., 1998. *Yukon Agricultural Research and Demonstration Project, 1998 Field Season*, Department of Renewable Resources, Government of the Yukon.

Smyth. S.E.R., Beckman, D.B., Hill, A.R., Smith, C.A.S., 1998. *Yukon Agriculture State of the Industry, 1996-1997.* Department of Renewable Resources, Government of the Yukon.